

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellant: Bruce K. Zeller

Serial No.: 10/823,113

Filing Date: April 13, 2004

Title: METHOD AND APPARATUS FOR SEPARATING EXCAVATED  
MATERIAL

Examiner: Joseph C. Rodriguez

Art Unit: 3653

TO: Mail Stop APPEAL BRIEF-PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPELLANT'S REPLY BRIEF  
PURSUANT TO 37 C.F.R. § 31.41(a)(1)**

**SNELL & WILMER L.L.P.**  
One Arizona Center  
Phoenix, Arizona 85004-2202  
Telephone: (602) 382-6377  
Facsimile: (602) 382-6070

## **I. STATUS OF CLAIMS**

Claims 22-27 are pending in the application.

Claims 22, 24-25 and 27 stand rejected under 35 U.S.C. §102(e) and are appealed herein.

Claims 23 and 26 stand rejected under 35 U.S.C. §103(a) and are appealed herein.

## **II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

After the Examiner's withdrawal of certain grounds of rejection, the remaining grounds of rejection to be reviewed on appeal are as follows:

Claims 22, 24-25 and 27 stand rejected under 35 U.S.C. §102(e) as being anticipated by Nierop (U.S. Publication No. 2004/0020830).

Claims 23 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Nierop in view of Wall (U.S. Patent No. 1,005,907).

## **III. ARGUMENT**

This Reply Brief is in response to the Examiner's Answer mailed on March 6, 2008. Pursuant to 37 C.F.R. §31.41(a)(1), Appellant may file a Reply Brief to an Examiner's Answer. Accordingly, Appellant is filing this Reply Brief which addresses the points of argument set out by the Examiner in the Examiner's Answer.

- A. Claims 22, 24-25 and 27 stand rejected under 35 U.S.C. §102(e) as being anticipated by Nierop (see Examiner's Answer, pages 3-4). More particularly, the Examiner contends that Nierop teaches a frame for separating excavated material having a base with a front wall, two side walls and two horizontal side bars extending backward from opposite sides of a bottom of the front wall, at least one vertical bar member extending vertically upward from the top of each of the horizontal side bars at an end of the horizontal side bars opposite the front wall, and a grate rigidly secured to and extending from the top of the vertical bar members to a top of the front wall such that the grate forms less than a ninety degree angle relative to a ground surface. The Examiner further states that "Regarding claims 24, 27 at least one flange (Fig. 3, 3A, near 40) extending

downward from a bottom of said grate.” The Examiner then states that Applicant is respectfully reminded that claim language consisting of functional language and/or intended use phrasing is given little, if any, patentable weight as the apparatus must merely be capable of functioning, or being used, as claimed. In addition, the Examiner states that the structures cited above are certainly capable of facilitating engagement with a bucket of a loader/backhoe and that it is further noted that the claim language “from a top” is interpreted as extending from an area near the top, thus a bar extending “from a top” is not regarded as required to be directly physically connected to the “top”.

In addition, in response to Appellant’s argument that Nierop is available as prior art, the Examiner continues to maintain that Appellant failed to properly perfect their priority claim by filing a petition under 37 C.F.R. §1.181. In addition, in response to Appellant’s argument that Nierop fails to disclose a grate rigidly secured to and extending from the top of the vertical bar member, the Examiner contends that Nierop teaches a grate member (14) firmly seated on a rigid frame (Fig. 1, 2, paragraph 16 teaching rigid frame members 16, 20, 30). The Examiner further states that prior art is interpreted as broadly as reason allows and that it is not unreasonable to regard the grate member as firmly secured as Nierop teaches that the surrounding frame structure is rigid and the device itself relies on the grate being rigidly held during screening (paragraph 15 teaching a rigid screen mounted on top of a rigid support frame). Therefore, the Examiner argues that in view of Nierop’s express teachings, the use of a hinge connection to connect a top portion of the grate can simply be regarded as another means that assists in forming a rigidly secure connection.

Appellant respectfully traverses the Examiner’s arguments. Appellant properly claimed priority to Application Nos. 10/227,993 and 09/503,823 by way of a Preliminary Amendment filed with the pending patent application on April 13, 2004. (See attached Exhibit A). In addition, in response to the Examiner’s Office Action of June 16, 2006, Appellant filed an Amendment and Response on

September 18, 2006 which updated Appellant's previously claimed priority (see attached Exhibit B).

In any event, even if the Board finds that Appellant's claim to priority is not properly perfected and must be done so by way of an additional petition, Appellant maintains its argument that Nierop fails to disclose a grate rigidly secured to and extending from the top of the vertical bar member. Rigidly is defined as "deficient in or devoid of flexibility," "stiff or unyielding; not pliant or flexible; hard," and "firmly fixed or set." (See attached Exhibit C of online dictionary definitions.) Therefore, a grate "rigidly secured to, and extending from, a top of said vertical bar members to a top of said front wall" would mean a grate that is inflexible and firmly fixed or set to a top of the vertical bar members and to a top of the front wall.

In addition, with respect to claims 24 and 27 which require "at least one flange extending downward from a bottom of said grate," Nierop fails to disclose such a flange. The Examiner's reference to a flange in Figs. 3 and 3A near reference numeral 40 in Nierop fails to show any element or structure which extends downward from a bottom of the grate in Nierop. Therefore, in that Nierop fails to disclose each and every element of Appellant's claims 22, 24-25 and 27, Nierop cannot anticipate Appellant's claims.

- B. Claims 23 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Nierop in view of Wall (see Examiner's Answer, page 5). More particularly, the Examiner contends that Nierop teaches all that is claimed except for expressly teaching at least one support bar extending from a top of each of said horizontal side walls to a mid-length of said grate on opposite sides of said grate. The Examiner then states that this feature is well known in the support arts and that Wallace, for instance, teaches a support structure for a screen that uses this type of support (Figs. 1, 2, support b4). In addition, the Examiner argues that this additional bracing serves the common-sense purpose of providing additional support for the screen structure. Therefore, the Examiner contends it would have


been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Nierop to achieve additional support for the grate.

Appellant respectfully traverses the Examiner's argument regarding the obviousness of combining Nierop and Wall to arrive at Appellant's claims 23 and 26. Nierop discloses that "The screen frame is pivotally mounted to a first upper member mounted at an upper end of the uprights, for pivoting between a lowered position and an elevated position" (see Nierop, paragraph 0005). In contrast, the support bars (b<sup>4</sup>) shown in Wall are rigidly and securely connected to a bottom bar (b) and a screen (C). Modifying Nierop to include the support bars taught in Wall would prevent the screen in Nierop from being moved between a lowered position and an elevated position. Therefore, it would not have been obvious to one of ordinary skill in the art to combine Wall and Nierop to arrive at Applicant's claims 23 and 26.

For the above reasons, as well as all of those arguments set out in previous papers contained in the record, Appellant contends that Appellant's pending patent claims are directed to patentable subject matter.

Dated: May 6, 2008

Respectfully submitted,

By   
Laura J. Zeman  
Registration No. 36,078

**SNELL & WILMER L.L.P.**  
One Arizona Center  
400 East Van Buren  
Phoenix, Arizona 85004-2202  
Telephone: (602) 382-6377  
Facsimile: (602) 382-6070

## EXHIBIT A

PATENT

IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE

Applicants: Bruce K. Zeller

Docket No.: 34985.0136

Serial No.: TBA

Examiner: TBA

Filed: April 13, 2004

Art Unit: TBA

Title: METHOD AND APPARATUS FOR  
SEPARATING EXCAVATED MATERIAL

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**PRELIMINARY AMENDMENT**

Mail Stop PATENT APPLICATION  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Dear Commissioner:

Please enter the following amendments prior to examining the above-referenced patent application.

**Amendments to the Specification** begin on page 2 of this paper.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 3 of this paper.

**Remarks/Arguments** begin on page 8 of this paper.

**Amendments to the Specification:**

Please insert the following paragraph above the paragraph entitled "Field of Invention" in the specification:

**Cross Reference to Related Applications**

This patent application is a continuation of U.S. Patent Application Serial No. 10/227,993 filed August 26, 2002 and entitled "Method and Apparatus for Separating Excavated Material" which claims priority to U.S. Patent Application Serial No. 09/503,283 filed February 14, 2000.



**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Original): A separating apparatus for classifying and recycling excavated material comprising:
  - a frame member having a slanted grate having two opposite sides and two opposite ends wherein said slanted grate forms less than a ninety degree angle relative to a ground surface; and
  - a removable screen member positioned on a top surface of said frame member, said screen member having two opposite sides, two opposite ends, a top surface, a bottom surface, and at least one inverted hook member extending from the top surface of said screen member.

10. (Original): The separating apparatus of claim 9 further comprising at least one flange extending from a bottom side of said slanted grate.

11. (Original): The separating apparatus of claim 9 further comprising at least one bar member traversing the top surface of said removable screen member wherein said bar member has a top side and a bottom side and said inverted hook member extends from the top side of said bar member.

12. (Original): The separating apparatus of claim 11 wherein said removable screen member includes one bar member secured between opposite sides of said screen member and at least two inverted hook members extending from said bar member.

13. (Original): The separating apparatus of claim 11 wherein said removable screen member includes at least two bar members secured between opposite ends of said screen member and at least one inverted hook member extending from each of said bar members.

14. (Original): The separating apparatus of claim 11 wherein said removable screen member further comprises means for releasably securing the bottom surface of said screen member to a top surface of a frame.

15. (Original): The separating apparatus of claim 14 wherein said releasable securing means includes a lip extending from the bottom surface of said screen member such that said lip member fits over an upper end of the top surface of the frame.

16. (Original): The separating apparatus of claim 14 wherein said releasable securing means includes at least one hook member extending from the bottom surface

of said screen member such that said hook member engages an upper end of the top surface of the frame.

17. (Original): The separating apparatus of claim 14 wherein said releasable securing means includes a locking mechanism positioned in at least two corners of said screen member.

18. (Original): The separating apparatus of claim 16 further comprising a triangular shaped support plate positioned over the top surface of each corner of said screen member.

19. (Original): The separating apparatus of claim 14 wherein said releasable securing means comprises a safety chain and hook assembly.

20. (Original): A method for separating and recycling excavated material comprising the steps of:

positioning a frame member having a slanted grate relative to a ground surface on the ground;

placing a removable screen over a top of the slanted grate by engaging hooks extending from a top surface of the removable screen member with a moving vehicle or apparatus; and

depositing excavated material on the top surface of the removable screen member such that the excavated material is separated by passing through both the removable screen member and the slanted grate.

21. (Original): The method of claim 20 further comprising the step of securing the removable screen member to the slanted grate before depositing excavated material on the removable screen member.

22. (New): A frame for separating excavated material comprising:  
a base having a front wall and two horizontal side bars extending backward from opposite sides of a bottom of said front wall;  
at least one vertical bar member extending vertically upward from a top of each of said horizontal side bars at an end of said horizontal side bars opposite said front wall; and  
a grate extending from a top of said vertical bar members to a top of said front wall such that said grate forms less than a ninety degree angle relative to a ground surface.
23. (New): The frame of claim 22 further comprising at least one support bar extending from a top of each of said horizontal side bars to a mid-length of said grate on opposite sides of said grate.
24. (New): The frame of claim 22 further comprising at least one flange extending downward from a bottom of said grate for facilitating engagement with a bucket of a loader/backhoe.
25. (New): A frame for separating excavated material comprising:  
a base having a front wall and two side walls;  
at least one bar member extending vertically upward from each of said side walls; and  
a grate extending from a top of said bar members to a top of said front wall such that said grate forms less than a ninety degree angel relative to a ground surface.
26. (New): The frame of claim 26 further comprising at least one support bar extending from a top of each side wall to a mid-length of said grate on opposite sides of said grate.

27. (New): The frame of claim 26 further comprising at least one flange extending downward from a bottom of said grate for facilitating engagement with a bucket of a loader/backhoe.

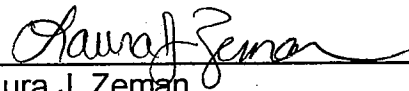
**REMARKS**

This Preliminary Amendment is being submitted to include the foregoing reference that this application is a continuation of U.S. Patent Application Serial No. 10/227,993 filed August 26, 2002 and entitled "Method and Apparatus for Separating Excavated Material" which claims priority to U.S. Patent Application Serial No. 09/503,283 filed February 14, 2000; cancel claims 1-8, without prejudice or disclaimer, and to add new claims 22-27.

Should the Examiner wish to discuss the above in greater detail, the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

Dated: 4/13/04

By:   
Laura J. Zeman  
Reg. No. 36,078

**SNELL & WILMER L.L.P.**  
One Arizona Center  
400 East Van Buren  
Phoenix, Arizona 85004-2202  
Phone (602) 382-6377  
Fax (602) 382-6070  
Email: lzeman@swlaw.com

## EXHIBIT B

**CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8**

I hereby certify that this Amendment and Response to Office Action is being facsimile transmitted to the United States Patent and Trademark Office at (571) 273-8300 and is addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on:

Date: 9/18/06

By Kim L. Brown  
Signature

**IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE**

**PATENT**

Applicant: Bruce K. Zeller

Docket No.: 34985.0136

Serial No.: 10/823,113

Examiner: Joseph C. Rodriguez

Filed: April 13, 2004

Art Unit: 3653

Title: METHOD AND APPARATUS FOR  
SEPARATING EXCAVATED  
MATERIAL

**AMENDMENT AND RESPONSE TO OFFICE ACTION**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action of June 16, 2006, the period of response for which is extended to September 18, 2006 in that September 16, 2006 falls on a Saturday, please consider the following remarks:

**No Amendments have been made to the claims.**

**Amendments to the Specification** begin on page 2 of this paper.

**Remarks/Arguments** begin on page 3 of this paper.



### **Amendments to the Specification**

Please amend the paragraph entitled "Cross Reference to Related Applications" as follows:

### **Cross Reference to Related Applications**

This patent application is a continuation of U.S. Patent Application Serial No. 10/227,993 filed August 26, 2002 and entitled "Method and Apparatus for Separating Excavated Material", now issued as U.S. Patent No. 6,863,182, which ~~claims priority to~~ is a continuation of U.S. Patent Application Serial No. 09/503,283 filed February 14, 2000, now issued as U.S. Patent No. 6,439,393.

## **REMARKS/ARGUMENTS**

In the June 16, 2006 Office Action, the Examiner rejected claims 22-27 pending in the application. This Response does not amend any claims. Claims 22-27 (2 independent claims; 7 total claims) remain pending in the application. Reconsideration is respectfully requested.

The Examiner first rejected claims 25-27 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,863,182. In response to the Examiner's obviousness-type double patenting rejection, Applicant has filed herewith a terminal disclaimer in compliance with 37 C.F.R. §1.321(c) to overcome the rejection.

The Examiner next rejected claims 22, 24-25, and 27 under 35 U.S.C. §102(e) as being anticipated by Nierop, U.S. Patent Application Publication No. US 2004/0020830 (hereinafter "Neirop"). In particular, the Examiner states the Neirop teaches a frame for separating excavated material having a base with a front wall, two side walls and two horizontal side bars extending backward from opposite sides of a bottom of the front wall, at least one vertical bar member extending vertically upward from the top of each of the horizontal side bars at an end of the horizontal side bars opposite the front wall, and a grate rigidly secured to and extending from the top of the vertical bar members to a top of the front wall such that the grate forms less than a ninety degree angle relative to a ground surface. Applicants respectfully traverse this rejection.

The Nierop reference was published on February 5, 2004 and has a filing date of July 31, 2002. Applicants' pending patent application is "a continuation of U.S. Patent Application Serial No. 10/227,993 filed August 26, 2002 and entitled "Method and Apparatus for Separating Excavated Material", now issued as U.S. Patent No. 6,863,182, which is a continuation of U.S. Patent Application Serial No. 09/503,283 filed February 14, 2000, now issued as U.S. Patent No. 6,439,393." Accordingly, in that Applicants' invention was not described in an application for patent, published under §122(b) by another filed in the United States before the invention by the Applicants, Nierop cannot anticipate Applicants' claimed invention. Moreover, with further respect to Nierop, Nierop fails to disclose a grate rigidly secured to and extending from the top of the vertical bar members to a top of the front wall in that the grate in Nierop is pivotally mounted

to an upper cross bar (20a) by hinges (18).

The Examiner then rejected claims 22 and 25 under 35 U.S.C. §102(b) as being anticipated by Bane, U.S. Patent No. 359,659 (hereafter "Bane"). In particular, the Examiner states that Bane teaches a frame for separating excavated material comprising a base having a front wall (wall near right of page), two side walls (walls above B) and two horizontal side bars (B) extending backward from opposite sides of a bottom of the front wall, at least one vertical bar member (A) extending vertically upward from a top of each of the horizontal side bars at an end of the horizontal side bars opposite the front wall, and a grate (O) rigidly secured to and extending from the top of the vertical bar members to the top of the front wall such that the grate forms less than a ninety degree angle relative to a ground surface. Applicants respectfully traverse this rejection.

Bane generally discloses a grinding mill for crushing and reducing ear-corn, grain, feed, and fertilizers. Further, Bane states that "A shaking-screen O is suspended beneath the table D by hangers o of rubber, leather, chains, or other flexible material. Castings P adjustably connected to a pair of diagonally-arranged corner-posts, have pulleys or guides, over which passes a cord or rope, R, having its ends attached to diagonally-opposite corners of the screen, said cord being in connection with and operated from the crank g<sup>2</sup> of the cone-shaft for giving the screen a side-to-side motion." In that the screen in Bane is a shaking-screen with side-to-side motion, Bane fails to disclose a grate that is rigidly secured to, and extending from, a top of the vertical bar members as required by Applicants' claims. Accordingly, in that Bane fails to disclose each and every element of Applicants' claimed invention, Bane cannot anticipate Applicants' claimed invention.

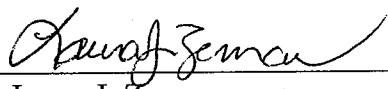
Finally, the Examiner rejected claims 23 and 26 under 35 U.S.C. §103(a) as being unpatentable over Nierop in view of Wall, U.S. Patent No. 1,005,907 (hereafter "Wall"). In particular, the Examiner stated that Nierop teaches all that is claimed by the Applicant except for expressly teaching at least one support bar extending from the top of each of the horizontal side walls to a mid-length of the grate on opposite sides of the grate. The Examiner further states that Wall teaches a support structure for a screen that uses this type of support (Figure 1, to support b4). Therefore, the Examiner states that it would have been obvious at the time the invention

was made to a person having ordinary skill in the art to modify the invention as taught by Nierop to achieve additional support for the grate. Applicants respectfully traverse this rejection.

As previously stated above, Nierop fails to qualify as prior art in that Applicants' claimed invention was invented long before Nierop's published patent application. In addition, Wall also fails to teach each and every element of Applicants' claimed invention, and in particular, a grate rigidly secured to, and extending from, a top of vertical bar members as previously set out in Applicants' claims. Accordingly, Applicants claims 23 and 26 cannot be obvious in light of Nierop and Wall.

In view of the foregoing, Applicant respectfully submits that all of the pending claims fully comply with 35 U.S.C. §112 and are allowable over the prior art of record. Reconsideration of the application and allowance of all pending claims is earnestly solicited. Should the Examiner wish to discuss any of the above in greater detail or deem that further amendments should be made to improve the form of the claims, then the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

By:   
Laura J. Zeman  
Reg. No. 36,078

**SNELL & WILMER L.L.P.**  
One Arizona Center  
400 East Van Buren  
Phoenix, Arizona 85004-2202  
Telephone: (602) 382-6377  
Facsimile: (602) 382-6070

## EXHIBIT C



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## rigid

One entry found.

rigid

Main Entry: **rig·id**

Pronunciation: \ˈri-jəd\

Function: *adjective*

Etymology: Middle English *rigide*, from Latin *rigidus*, from *rigēre* to be stiff

Date: 15th century

- 1 a** : deficient in or devoid of flexibility <*rigid* price controls> <a *rigid* bar of metal> **b** : appearing stiff and unyielding <his face *rigid* with pain>  
**2 a** : inflexibly set in opinion **b** : strictly observed <adheres to a *rigid* schedule>  
**3** : firmly inflexible rather than lax or indulgent <a *rigid* disciplinarian>  
**4** : precise and accurate in procedure <*rigid* control of the manufacturing process>

**5 of an airship** : having the outer shape maintained by a fixed framework

— **rig·id·ly** *adverb*

— **rig·id·ness** *noun*

**synonyms** RIGID, RIGOROUS, STRICT, STRINGENT mean extremely severe or stern. RIGID implies uncompromising inflexibility <*rigid* rules of conduct>. RIGOROUS implies the imposition of hardship and difficulty <the *rigorous* training of recruits>. STRICT emphasizes undeviating conformity to rules, standards, or requirements <*strict* enforcement of the law>. STRINGENT suggests severe, tight restriction or limitation <*stringent* standards of admission>.

**synonyms** see in addition STIFF

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**rig·id**  [Audio Help](#) [**rij-id**] [Pronunciation Key](#) - [Show IPA Pronunciation](#)

*-adjective*

1. stiff or unyielding; not pliant or flexible; hard: *a rigid strip of metal.*
2. firmly fixed or set.
3. inflexible, strict, or severe: *a rigid disciplinarian; rigid rules of social behavior.*
4. exacting; thorough; rigorous: *a rigid examination.*
5. so as to meet precise standards; stringent: *lenses ground to rigid specifications.*
6. *Mechanics.* of, pertaining to, or noting a body in which the distance between any pair of points remains fixed under all forces; having infinite values for its shear modulus, bulk modulus, and Young's modulus.
7. *Aeronautics.*
  - a. (of an airship or dirigible) having a form maintained by a stiff, unyielding structure contained within the envelope.
  - b. pertaining to a helicopter rotor that is held fixedly at its root.

[Origin: 1530-40; < L *rigidus*, equiv. to *rig(ére)* to be stiff, stiffen + *-idus* -ID<sup>4</sup>]

*—Related forms***ri·gid·i·ty**, **rig·id·ness**, *noun***rig·id·ly**, *adverb*

*—Synonyms* 1. unbending, firm, inflexible. 2. immovable. static. 3. austere. stern. unyielding. See